connecting the signal input and output (I/O) ports of each digital signal apparatus to a first terminal of a digital signal frequency filter, a second terminal of which is connected to the coaxial cable, said digital signal frequency filter having a frequency passband which is substantially equal to the frequency range of said PC digital signal channel, said digital signal frequency filter providing a substantially equal filter characteristic impedance to unmodulated digital signals exchanged bi-directionally, at a signal bit speed, between said first terminal and said second terminal; and

connecting each RF modulated video signal apparatus to the cable through an RF video signal frequency filter having a frequency passband which is substantially equal to the frequency range of said RF video signal channel, said RF video signal frequency filter providing a substantially equal filter characteristic impedance to RF modulated video signals propagating bi-directionally therethrough between the RF modulated video signal apparatus and the cable.

12. (Amended) A method of exchanging unmodulated digital signals between digital signal apparatus interconnected over a complete network through a single conductor coaxial cable simultaneously with broadband transmission of RF modulated video signals between video signal apparatus over the same cable throughout the complete network, the video apparatus including one or more video signal sources and one or more video signal receivers, the coaxial cable having a cable characteristic impedance, the method comprising:

establishing a plurality of signal frequency channels, including a PC digital signal channel having a frequency range substantially from zero hertz to 2.5 megahertz and an RF video signal channel having a frequency range substantially at five megahertz and above;

connecting the signal input and output (I/O) ports of each digital signal apparatus through an impedance matching network to a first terminal of a digital signal frequency filter, a second terminal of which is connected to the coaxial cable, said digital signal frequency filter having a frequency passband which is substantially equal to the frequency range of said PC digital signal channel to provide for bi-directional exchange of unmodulated digital signals between the coaxial cable and the I/O ports of the digital signal apparatus, said impedance matching network providing a terminating impedance value at said first terminal which approximates the cable characteristic impedance

provided by the coaxial cable to said second terminal, to provide said bi-directional exchange of unmodulated digital signals at a minimum signal bit speed of substantially 1.0 Mbps; and

connecting each RF modulated video signal apparatus to the cable through an RF video signal frequency filter having a frequency passband which is substantially equal to the frequency range of said RF video signal channel, said RF video signal frequency filter providing a substantially equal filter characteristic impedance to RF modulated video signals propagating bi-directionally therethrough between the RF modulated video signal apparatus and the cable.

13. (Amended) An apparatus for exchanging unmodulated digital signals between digital signal apparatus interconnected over a complete network, including computers, through a single conductor coaxial cable simultaneously with broadband transmission of RF modulated video signals between video signal apparatus over the same cable throughout the complete network, the video apparatus including one or more video signal sources and one or more video signal receivers, the coaxial cable having a cable characteristic impedance, the apparatus comprising:

Bond.

plurality of digital signal frequency filters, one each associated with each digital signal apparatus, each said digital signal frequency filter having a first terminal adapted for signal connection to the signal input and output (I/O) ports of the associated digital signal apparatus and having a second terminal adapted for signal connection to the coaxial cable, each said digital signal frequency filter having a frequency passband suitable to pass the unmodulated digital signals therethrough, bi-directionally between the digital signal apparatus and the coaxial cable, at a selected signal bit speed and at a substantially equal, bi-directional filter characteristic impedance; and

plurality of RF video signal frequency filters, one each associated with each RF modulated video signal apparatus, each said RF video signal frequency filter having a first terminal adapted for signal connection to the signal I/O ports of the associated RF modulated video signal apparatus and having a second terminal adapted for signal connection to the coaxial cable, said RF video signal frequency filters having a frequency passband suitable to pass the RF modulated video signals therethrough, bi-directionally between the video signal apparatus and the coaxial cable.

Sub C3 24. (Amended) An apparatus for exchanging unmodulated digital signals between digital signal apparatus interconnected over a complete network through a single conductor coaxial cable simultaneously with broadband transmission of RF modulated video signals between video signal apparatus over the same cable throughout the complete network, the video apparatus including one or more video signal sources and one or more video signal receivers, the coaxial cable having a cable characteristic impedance, the apparatus comprising:

plurality of digital signal frequency filters, one each associated with each digital signal apparatus, each said digital signal frequency filter having a first terminal adapted for signal connection through a impedance matching network to the signal input and output (I/O) ports of the associated digital signal apparatus and having a second terminal adapted for signal connection to the coaxial cable, each said digital signal frequency filter having a frequency passband substantially from zero hertz to 2.5 megahertz so as to pass the unmodulated digital signals bi-directionally therethrough, between said first and second terminals;

B3

plurality of impedance matching networks, one each inserted between the signal I/O ports of an associated digital signal apparatus and said first terminal of an associated one of said digital signal frequency filters, said impedance matching network providing a terminating impedance value at said first terminal of said associated digital signal frequency filter which approximates the cable characteristic impedance provided to said second terminal of said filter, to provide a substantially balanced filter characteristic impedance to unmodulated digital signals exchanged bi-directionally through said digital signal frequency filter at a minimum signal bit speed of substantially 1.0 Mbps; and

plurality of RF video signal frequency filters, one each associated with each RF modulated video signal apparatus, each said RF video signal frequency filter having a first terminal adapted for signal connection to the signal I/O ports of the associated RF modulated video signal apparatus and having a second terminal adapted for signal connection to the coaxial cable, said RF video signal frequency filters having a frequency passband beginning substantially at five megahertz and increasing to an upper frequency limit suitable to pass the RF modulated video signals bi-directionally therethrough, between the video signal apparatus and the coaxial cable.

25. (Twice Amended) A method for distributing radio frequency (RF) modulated broadcast television signals from a broadcast signal source to networked appliances making up a complete network, and connected to the source through a plurality of single conductor coaxial cables, and simultaneously therewith distributing signals exchanged between the networked appliances over the same coaxial cables throughout the complete network, the exchanged signals including RF modulated video signals from RF modulated video signal appliances and unmodulated digital from digital signal appliances, the coaxial cable having a cable characteristic impedance, the method comprising:

installing a device for bi-directionally transmitting and receiving RF modulated signals on a plurality of interconnected coaxial cables, which comprises a multi-drop signal distribution apparatus having a source input for receiving the RF modulated broadcast television signals from the broadcast source and having a plurality of signal ports for receiving the RF modulated video signals and unmodulated digital signals from each of the plurality of coaxial cables;

coupling the RF broadcast signals within said signal distribution apparatus, from said source input to each said signal port;

coupling the RF modulated video signals and the unmodulated digital signals received at each said signal port to each other signal port, without port-to-port signal isolation; and

connecting each appliance to its associated coaxial cable through an associated one of a plurality of signal frequency filters, including a digital signal frequency filter having a frequency bandpass suitable to pass therethrough the unmodulated digital signals at a selected signal bit speed, and including an RF modulated video signal filter having a frequency bandpass suitable to pass therethrough the RF modulated broadcast television signals and the RF modulated video signals, each said filter being connected at a first terminal thereof to the associated appliance and connected at a second terminal thereof to the associated coaxial cable, each said providing a substantially equal filter characteristic impedance to bandpass signals propagating bi-directionally therethrough between the associated appliance and the coaxial cable.

Sub C4 37. (Twice Amended) A method for distributing radio frequency (RF) modulated broadcast television signals from a broadcast signal source to networked

appliances making up a complete network, and connected to the source through a plurality of single conductor coaxial cables, while simultaneously distributing signals exchanged between the networked appliances over the same coaxial cables throughout the complete network, the exchanged signals including RF modulated video signals from RF modulated video signal appliances and unmodulated digital from digital signal appliances, the coaxial cable having a cable characteristic impedance, the method comprising:

installing a device for bi-directionally transmitting and receiving RF modulated signals on a plurality of interconnected coaxial cables, which comprises a multi-drop signal distribution apparatus having a source input for receiving the RF modulated broadcast television signals from the broadcast source and having a plurality of signal ports, each signal port receiving the RF modulated video signals and unmodulated digital signals from an associated one of the plurality of coaxial cables;

coupling the RF broadcast signals within said signal distribution apparatus, from said source input to each said signal port;

coupling the RF modulated video signals and the unmodulated digital signals received at each said signal port to each other signal port, without port-to-port signal isolation;

connecting each appliance to its associated coaxial cable through one of a plurality of signal frequency filters, each said filter being connected at a first terminal thereof to the associated appliance and connected at a second terminal thereof to the associated coaxial cable, said plurality of signal filters including digital signal frequency filters having a frequency bandpass substantially from zero hertz to 2.5 Megahertz, suitable to pass therethrough unmodulated digital signals between a digital signal appliance and the coaxial, said plurality of signal filters further including RF modulated video signal filters having a frequency bandpass greater than five megahertz, suitable to pass therethrough the RF modulated broadcast television signals and the RF modulated video signals between an RF modulated video signal appliance and the coaxial cable, each said providing a substantially equal filter characteristic impedance to bandpass signals propagating bi-directionally therethrough between the associated appliance and ~~the coaxial cable; and~~

inserting an impedance matching network between the signal input and output (I/O) ports of each digital signal appliance and said first terminal of said associated digital signal frequency filter, said impedance matching network providing a terminating impedance value at said first terminal which approximates the cable characteristic impedance provided to said second terminal, thereby providing said bi-directional exchange of unmodulated digital signals at a minimum signal bit speed of substantially with minimum digital signal interference of the RF modulated video signals.

38. (Twice Amended) An apparatus for distributing radio frequency (RF) modulated broadcast television signals from a broadcast signal source to networked appliances making up a complete network, and connected to the source through a plurality of single conductor coaxial cables and, concurrently and alternately therewith, distributing signals exchanged between the networked appliances over the same coaxial cables throughout the complete network, the exchanged signals including RF modulated video signals from RF modulated video signal appliances and unmodulated digital from digital signal appliances, the coaxial cable having a cable characteristic impedance, the apparatus comprising:

B5 cont.

a device for bi-directionally transmitting and receiving RF modulated signals on a plurality of interconnected coaxial cables, which comprises a multi-drop signal distribution apparatus, having a source input adapted for receiving the RF modulated broadcast television signals from the broadcast source and having a plurality of signal ports, each adapted for receiving the RF modulated video signals and unmodulated digital signals from an associated one of the plurality of coaxial cables, to be associated therewith, said signal distribution apparatus coupling the RF broadcast television signals from said source input to each said signal port and coupling the RF modulated video signals and the unmodulated digital signals received at each said signal port to each other signal port;

a plurality of digital signal frequency filters, each adapted for connection at a first terminal thereof to the signal input and output (I/O) of a related one of the digital signal appliances and adapted at a second terminal thereof for connection to the networked appliance associated coaxial cable, each said digital signal frequency filter having a frequency bandpass suitable to pass unmodulated digital signals therethrough at a selected signal bit speed between the digital signal appliance and the coaxial cable; and

a plurality of RF modulated video signal frequency filters, each adapted for connection at a first terminal thereof to the signal (I/O) of a related one of the RF modulated video signal appliances and adapted at a second terminal thereof for connection to the networked appliance associated coaxial cable, each said RF modulated video signal filter having a frequency bandpass suitable to pass the RF modulated broadcast television signals and the RF modulated video signals bi-directionally therethrough between the associated appliance and the coaxial cable.

49. (Twice Amended) An apparatus, for distributing radio frequency (RF) modulated broadcast television signals from a broadcast signal source to networked appliances making up a complete network, and distributed in selected locations and connected to the source through associated ones of a plurality of single conductor coaxial cables throughout the complete network, and for also distributing, concurrently and alternately therewith in response to infrared (IR) command signals received from IR signal sources controlled by an operator, signals exchanged between the networked appliances over the same coaxial cables throughout the complete network, the exchanged signals including RF modulated video signals from RF modulated video signal appliances, unmodulated digital from digital signal appliances, and the received IR command signals, the different type appliances and the source of IR command signals each having different operating signal frequency ranges, the coaxial cable having a cable characteristic impedance, the apparatus comprising:

a plurality of IR transceivers, at least one located in line-of-sight proximity to the networked appliances in each selected area, each said IR transceiver responsive to IR command signals received through the air from IR signal sources in the area for providing an equivalent electrical command signal thereof, and each transmitting IR command signals through the air to appliances in the area in response to equivalent electrical command signals received thereby;

a plurality interface apparatus, one each associated with one or more appliances and IR transceivers within a selected area, said interface apparatus having a digital signal frequency filter, an electrical command signal frequency filter, and an RF modulated video signal frequency filter, each having a different bandpass frequency which encompass the different operating signal frequency ranges of the unmodulated digital signals, the electrical command signals, and the RF modulated television signals

and video signals, respectively; said digital signal frequency filter being interconnected at first and second terminals thereof between the signal input and output (I/O) ports of a digital signal appliance and the coaxial cable, said electrical command signal frequency filter being interconnected at first and second terminals thereof between an IR transceiver and the coaxial cable, and said RF modulated video signal frequency filter being interconnected at first and second terminals thereof between the signal I/O ports of an RF modulated video signal appliance and the coaxial cable, wherein each said frequency filter bi-directionally couples operating signals within their respective bandpass frequencies between the associated appliance and the coaxial cable; and

B6 Amd.

a device for bi-directionally transmitting and receiving RF modulated signals on a plurality of interconnected coaxial cables, which comprises a signal distribution unit, having a source input for receiving the RF modulated broadcast television signals, and having a plurality of signal ports for receiving the unmodulated digital signals, the electrical command signals, and the RF modulated video signals provided through an associated one of the coaxial cables from each of said interface apparatus, said signal distribution unit coupling the RF broadcast television signals from said source input to each said signal port and coupling the unmodulated digital signals, the electrical command signals, and the RF modulated video signals received at each said signal port to each other said signal port.

Sub C6

61. (Amended) An apparatus for bidirectionally transmitting and receiving RF modulated signals on a plurality of interconnected coaxial cables which establish a complete network, throughout the complete network, the apparatus comprising a multi-drop signal distribution device, which comprises:

1) a source input for receiving RF modulated signals from a broadcast source; and

B7

2) a plurality of signal ports, each port adapted for receiving a plurality of modulated signals, including at least said RF modulated signals, for receiving digital signals from associated ones of a plurality of coaxial cables connectable to each of said signal ports, and connected to couple the RF modulated signals from said source input to each signal port and coupling the RF modulated signals from said source input to each of said signal ports, and coupling the RF modulated signals and the unmodulated digital signals received at each said signal port to each other signal port.

Sub C7 67. (Amended) An interface apparatus connectable to networked appliances distributed in selected locations which establish a complete network, and connected to a source of RF modulated signals through associated ones of a plurality of single conductor coaxial cable, comprising:

an RF modulator for transmitting said RF modulated signals and for generating an RF television channel on one of plural reserved spectrum channels from baseband audio and video signals receivable from an appliance to be associated therewith;

a processing circuit connected to said RF modulator for programming the modulator by sending bytes for initializing a picture carrier frequency, a sound subcarrier frequency and a video modulation depth; and

an impedance matching network connected between I/O ports connectable to an appliance and said processing circuit, for providing an impedance value to signals at a connection to an appliance, anywhere on the complete network, which approximates the characteristic impedance provided by coaxial cable.

In accordance with 37 CFR 1.121(c), the following versions of the claims as rewritten by the foregoing amendment show all the changes made relative to the previous versions of the claims.

1. (Amended) ~~The~~ A method of exchanging unmodulated digital signals between digital signal apparatus interconnected over a complete network, including computers, ~~over~~ through a single conductor coaxial cable simultaneously with broadband transmission of RF modulated video signals between video signal apparatus over the same cable throughout the complete network, the video apparatus including one or more video signal sources and one or more video signal receivers, the coaxial cable having a cable characteristic impedance, the method comprising:

establishing a plurality of signal frequency channels, including an RF video signal channel and a PC digital signal channel, each frequency channel having a different frequency range;

connecting the signal input and output (I/O) ports of each digital signal apparatus to a first terminal of a digital signal frequency filter, a second terminal of which is connected to the coaxial cable, said digital signal frequency filter having a frequency passband which is substantially equal to the frequency range of said PC digital signal channel, said digital signal frequency filter providing a substantially equal filter characteristic impedance to unmodulated digital signals exchanged bi-directionally, at a signal bit speed, between said first terminal and said second terminal; and

connecting each RF modulated video signal apparatus to the cable through an RF video signal frequency filter having a frequency passband which is substantially equal to the frequency range of said RF video signal channel, said RF video signal frequency filter providing a substantially equal filter characteristic impedance to RF modulated video signals propagating bi-directionally therethrough between the RF modulated video signal apparatus and the cable.

12. ~~The~~(Amended) A method of exchanging unmodulated digital signals between digital signal apparatus interconnected over a complete network through a single conductor coaxial cable simultaneously with broadband transmission of RF modulated video signals between video signal apparatus over the same cable throughout the complete network, the video apparatus including one or more video signal sources and

one or more video signal receivers, the coaxial cable having a cable characteristic impedance, the method comprising:

establishing a plurality of signal frequency channels, including a PC digital signal channel having a frequency range substantially from zero hertz to 2.5 megahertz and an RF video signal channel having a frequency range substantially at five megahertz and above;

connecting the signal input and output (I/O) ports of each digital signal apparatus through an impedance matching network to a first terminal of a digital signal frequency filter, a second terminal of which is connected to the coaxial cable, said digital signal frequency filter having a frequency passband which is substantially equal to the frequency range of said PC digital signal channel to provide for bi-directional exchange of unmodulated digital signals between the coaxial cable and the I/O ports of the digital signal apparatus, said impedance matching network providing a terminating impedance value at said first terminal which approximates the cable characteristic impedance provided by the coaxial cable to said second terminal, to provide said bi-directional exchange of unmodulated digital signals at a minimum signal bit speed of substantially 1.0 Mbps; and

connecting each RF modulated video signal apparatus to the cable through an RF video signal frequency filter having a frequency passband which is substantially equal to the frequency range of said RF video signal channel, said RF video signal frequency filter providing a substantially equal filter characteristic impedance to RF modulated video signals propagating bi-directionally therethrough between the RF modulated video signal apparatus and the cable.

13. (Amended) ~~Apparatus~~ An apparatus for exchanging unmodulated digital signals between digital signal apparatus interconnected over a complete network, including computers, ~~over~~ through a single conductor coaxial cable simultaneously with broadband transmission of RF modulated video signals between video signal apparatus over the same cable throughout the complete network, the video apparatus including one or more video signal sources and one or more video signal receivers, the coaxial cable having a cable characteristic impedance, the apparatus comprising:

~~a~~ plurality of digital signal frequency filters, one each associated with each digital signal apparatus, each said digital signal frequency filter having a first terminal

adapted for signal connection to the signal input and output (I/O) ports of the associated digital signal apparatus and having a second terminal adapted for signal connection to the coaxial cable, each said digital signal frequency filter having a frequency passband suitable to pass the unmodulated digital signals therethrough, bi-directionally between the digital signal apparatus and the coaxial cable, at a selected signal bit speed and at a substantially equal, bi-directional filter characteristic impedance; and

~~a~~ plurality of RF video signal frequency filters, one each associated with each RF modulated video signal apparatus, each said RF video signal frequency filter having a first terminal adapted for signal connection to the signal I/O ports of the associated RF modulated video signal apparatus and having a second terminal adapted for signal connection to the coaxial cable, said RF video signal frequency filters having a frequency passband suitable to pass the RF modulated video signals therethrough, bi-directionally between the video signal apparatus and the coaxial cable.

24. (Amended) ~~Apparatus~~ An apparatus for exchanging unmodulated digital signals between digital signal apparatus interconnected over a complete network through a single conductor coaxial cable simultaneously with broadband transmission of RF modulated video signals between video signal apparatus over the same cable throughout the complete network, the video apparatus including one or more video signal sources and one or more video signal receivers, the coaxial cable having a cable characteristic impedance, the apparatus comprising:

~~a~~ plurality of digital signal frequency filters, one each associated with each digital signal apparatus, each said digital signal frequency filter having a first terminal adapted for signal connection through a impedance matching network to the signal input and output (I/O) ports of the associated digital signal apparatus and having a second terminal adapted for signal connection to the coaxial cable, each said digital signal frequency filter having a frequency passband substantially from zero hertz to 2.5 megahertz so as to pass the unmodulated digital signals bi-directionally therethrough, between said first and second terminals;

~~a~~ plurality of impedance matching networks, one each inserted between the signal I/O ports of an associated digital signal apparatus and said first terminal of an associated one of said digital signal frequency filters, said impedance matching network providing a terminating impedance value at said first terminal of said associated digital

signal frequency filter which approximates the cable characteristic impedance provided to said second terminal of said filter, to provide a substantially balanced filter characteristic impedance to unmodulated digital signals exchanged bi-directionally through said digital signal frequency filter at a minimum signal bit speed of substantially 1.0 Mbps; and

~~a~~ plurality of RF video signal frequency filters, one each associated with each RF modulated video signal apparatus, each said RF video signal frequency filter having a first terminal adapted for signal connection to the signal I/O ports of the associated RF modulated video signal apparatus and having a second terminal adapted for signal connection to the coaxial cable, said RF video signal frequency filters having a frequency passband beginning substantially at five megahertz and increasing to an upper frequency limit suitable to pass the RF modulated video signals bi-directionally therethrough, between the video signal apparatus and the coaxial cable.

25. (Twice Amended)—~~The~~ A method for distributing radio frequency (RF) modulated broadcast television signals from a broadcast signal source to networked appliances making up a complete network, and connected to the source through a plurality of single conductor coaxial cables, and simultaneously therewith distributing signals exchanged between the networked appliances over the same coaxial cables throughout the complete network, the exchanged signals including RF modulated video signals from RF modulated video signal appliances and unmodulated digital from digital signal appliances, the coaxial cable having a cable characteristic impedance, the method comprising:

installing a device for bi-directionally transmitting and receiving RF modulated signals on a plurality of interconnected coaxial cables, which comprises a multi-drop signal distribution apparatus having a source input for receiving the RF modulated broadcast television signals from the broadcast source and having a plurality of signal ports for receiving the RF modulated video signals and unmodulated digital signals from each of the plurality of coaxial cables;

coupling the RF broadcast signals within said signal distribution apparatus, from said source input to each said signal port;

coupling the RF modulated video signals and the unmodulated digital signals received at each said signal port to each other signal port, without port-to-port signal isolation; and

connecting each appliance to its associated coaxial cable through an associated one of a plurality of signal frequency filters, including a digital signal frequency filter having a frequency bandpass suitable to pass therethrough the unmodulated digital signals at a selected signal bit speed, and including an RF modulated video signal filter having a frequency bandpass suitable to pass therethrough the RF modulated broadcast television signals and the RF modulated video signals, each said filter being connected at a first terminal thereof to the associated appliance and connected at a second terminal thereof to the associated coaxial cable, each said providing a substantially equal filter characteristic impedance to bandpass signals propagating bi-directionally therethrough between the associated appliance and the coaxial cable.

37. (Twice Amended) ~~The~~ A method for distributing radio frequency (RF) modulated broadcast television signals from a broadcast signal source to networked appliances making up a complete network, and connected to the source through a plurality of single conductor coaxial cables, while simultaneously distributing signals exchanged between the networked appliances over the same coaxial cables throughout the complete network, the exchanged signals including RF modulated video signals from RF modulated video signal appliances and unmodulated digital from digital signal appliances, the coaxial cable having a cable characteristic impedance, the method comprising:

installing a device for bi-directionally transmitting and receiving RF modulated signals on a plurality of interconnected coaxial cables, which comprises a multi-drop signal distribution apparatus having a source input for receiving the RF modulated broadcast television signals from the broadcast source and having a plurality of signal ports, each signal port receiving the RF modulated video signals and unmodulated digital signals from an associated one of the plurality of coaxial cables;

coupling the RF broadcast signals within said signal distribution apparatus, from said source input to each said signal port;

coupling the RF modulated video signals and the unmodulated digital signals received at each said signal port to each other signal port, without port-to-port signal isolation;

connecting each appliance to its associated coaxial cable through one of a plurality of signal frequency filters, each said filter being connected at a first terminal

thereof to the associated appliance and connected at a second terminal thereof to the associated coaxial cable, said plurality of signal filters including digital signal frequency filters having a frequency bandpass substantially from zero hertz to 2.5 Megahertz, suitable to pass therethrough unmodulated digital signals between a digital signal appliance and the coaxial, said plurality of signal filters further including RF modulated video signal filters having a frequency bandpass greater than five megahertz, suitable to pass therethrough the RF modulated broadcast television signals and the RF modulated video signals between an RF modulated video signal appliance and the coaxial cable, each said providing a substantially equal filter characteristic impedance to bandpass signals propagating bi-directionally therethrough between the associated appliance and the coaxial cable; and

inserting an impedance matching network between the signal input and output (I/O) ports of each digital signal appliance and said first terminal of said associated digital signal frequency filter, said impedance matching network providing a terminating impedance value at said first terminal which approximates the cable characteristic impedance provided to said second terminal, thereby providing said bi-directional exchange of unmodulated digital signals at a minimum signal bit speed of substantially with minimum digital signal interference of the RF modulated video signals.

38. (Twice Amended) ~~Apparatus~~ An apparatus for distributing radio frequency (RF) modulated broadcast television signals from a broadcast signal source to networked appliances making up a complete network, and connected to the source through a plurality of single conductor coaxial cables and, concurrently and alternately therewith, distributing signals exchanged between the networked appliances over the same coaxial cables throughout the complete network, the exchanged signals including RF modulated video signals from RF modulated video signal appliances and unmodulated digital from digital signal appliances, the coaxial cable having a cable characteristic impedance, the apparatus comprising:

a device for bi-directionally transmitting and receiving RF modulated signals on a plurality of interconnected coaxial cables, which comprises a multi-drop signal distribution apparatus, having a source input adapted for receiving the RF modulated broadcast television signals from the broadcast source and having a plurality of signal ports, each adapted for receiving the RF modulated video signals and

unmodulated digital signals from an associated one of the plurality of coaxial cables, to be associated therewith, said signal distribution apparatus coupling the RF broadcast television signals from said source input to each said signal port and coupling the RF modulated video signals and the unmodulated digital signals received at each said signal port to each other signal port;

a plurality of digital signal frequency filters, each adapted for connection at a first terminal thereof to the signal input and output (I/O) of a related one of the digital signal appliances and adapted at a second terminal thereof for connection to the networked appliance associated coaxial cable, each said digital signal frequency filter having a frequency bandpass suitable to pass unmodulated digital signals therethrough at a selected signal bit speed between the digital signal appliance and the coaxial cable; and

a plurality of RF modulated video signal frequency filters, each adapted for connection at a first terminal thereof to the signal (I/O) of a related one of the RF modulated video signal appliances and adapted at a second terminal thereof for connection to the networked appliance associated coaxial cable, each said RF modulated video signal filter having a frequency bandpass suitable to pass the RF modulated broadcast television signals and the RF modulated video signals bi-directionally therethrough between the associated appliance and the coaxial cable.

49. (Twice Amended) ~~Apparatus~~ An apparatus, for distributing radio frequency (RF) modulated broadcast television signals from a broadcast signal source to networked appliances making up a complete network, and distributed in selected locations and connected to the source through associated ones of a plurality of single conductor coaxial cables throughout the complete network, and for also distributing, concurrently and alternately therewith in response to infrared (IR) command signals received from IR signal sources controlled by an operator, signals exchanged between the networked appliances over the same coaxial cables throughout the complete network, the exchanged signals including RF modulated video signals from RF modulated video signal appliances, unmodulated digital from digital signal appliances, and the received IR command signals, the different type appliances and the source of IR command signals each having different operating signal frequency ranges, the coaxial cable having a cable characteristic impedance, the apparatus comprising:

a plurality of IR transceivers, at least one located in line-of-sight proximity to the networked appliances in each selected area, each said IR transceiver responsive to IR command signals received through the air from IR signal sources in the area for providing an equivalent electrical command signal thereof, and each transmitting IR command signals through the air to appliances in the area in response to equivalent electrical command signals received thereby;

a plurality interface apparatus, one each associated with one or more appliances and IR transceivers within a selected area, said interface apparatus having a digital signal frequency filter, an electrical command signal frequency filter, and an RF modulated video signal frequency filter, each having a different bandpass frequency which encompass the different operating signal frequency ranges of the unmodulated digital signals, the electrical command signals, and the RF modulated television signals and video signals, respectively; said digital signal frequency filter being interconnected at first and second terminals thereof between the signal input and output (I/O) ports of a digital signal appliance and the coaxial cable, said electrical command signal frequency filter being interconnected at first and second terminals thereof between an IR transceiver and the coaxial cable, and said RF modulated video signal frequency filter being interconnected at first and second terminals thereof between the signal I/O ports of an RF modulated video signal appliance and the coaxial cable, wherein each said frequency filter bi-directionally couples operating signals within their respective bandpass frequencies between the associated appliance and the coaxial cable; and

a device for bi-directionally transmitting and receiving RF modulated signals on a plurality of interconnected coaxial cables, which comprises a signal distribution unit, having a source input for receiving the RF modulated broadcast television signals, and having a plurality of signal ports for receiving the unmodulated digital signals, the electrical command signals, and the RF modulated video signals provided through an associated one of the coaxial cables from each of said interface apparatus, said signal distribution unit coupling the RF broadcast television signals from said source input to each said signal port and coupling the unmodulated digital signals, the electrical command signals, and the RF modulated video signals received at each said signal port to each other said signal port.

61. (Amended) An apparatus for bidirectionally transmitting and receiving RF modulated signals on a plurality of interconnected coaxial cables which establish a complete network, throughout the complete network, the apparatus comprising a multi-drop signal distribution device, which comprises:

1) a source input for receiving RF modulated signals from a broadcast source; and

2) a plurality of signal ports, each port adapted for receiving a plurality of modulated signals, including at least said RF modulated signals, for receiving digital signals from associated ones of a plurality of coaxial cables connectable to each of said signal ports, and connected to couple the RF modulated signals from said source input to each signal port and coupling the RF modulated signals from said source input to each of said signal ports, and coupling the RF modulated signals and the unmodulated digital signals received at each said signal port to each other signal port.

67. (Amended) An interface apparatus connectable to networked appliances distributed in selected locations which establish a complete network, and connected to a source of RF modulated signals through associated ones of a plurality of single conductor coaxial cable, comprising:

an RF modulator for transmitting said RF modulated signals and for generating an RF television channel on one of plural reserved spectrum channels from baseband audio and video signals receivable from an appliance to be associated therewith;

a processing circuit connected to said RF modulator for programming the modulator by sending bytes for initializing a picture carrier frequency, a sound subcarrier frequency and a video modulation depth; and

an impedance matching network connected between I/O ports connectable to an appliance and said processing circuit, for providing an impedance value to signals at a connection to an appliance, anywhere on the complete network, which approximates the characteristic impedance provided by coaxial cable.